



# Top 10 Eye Makeup Nasties\*

1 Argireline (Acetylhexapeptide-3 or Acetylhexapeptide-8)

2 Benzalkonium chloride (BAK)

3 Formaldehyde releasing compounds

4 Fragrance

5 Isopropyl cloprostenate (analog of prostaglandins such as bimatoprost)

6 Parabens

7 Phenoxyethanol

8 Retinols

9 Salicylic acid

10 Tea tree oil (Terpinen-4-ol)

\* Cosmetics include anything that you apply, rub, pour, sprinkle, smear, or spray onto your face and around/on your eyes, inclusive of colors and skincare products.

\* \*This is not an exhaustive list of ocular-surface-offending ingredients. Please speak with your eye doctor if you have questions about how use of cosmetics may impact your eye health.

È  
YE  
SAR  
ETHE  
STORY™

## REFERENCES

1. Ozgur O, Murariu D, Parsa AA, Parsa FD. Dry eye syndrome due to botulinum toxin type-A injection: guideline for prevention. *Hawaii J Med Pub Health* 2012;71(5):120-1237
2. Chen X, Liu Y, Kam WR, Sullivan AG, Sullivan DA. Toxicity of cosmetic preservatives on human ocular surface and adnexal cells. *Exp Eye Res* 2018;59:193-205. 3. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans. Carbon Black evaluation and rationale. 2010;93:43-190.
4. Wang J, Liu Y, Kam WR, Li Y, Sullivan DA. Toxicity of the cosmetic preservatives parabens, phenoxyethanol and chlorphenesin on human meibomian gland epithelial cells. *Exp Eye Res* 2020; 196:108057.
5. <https://www.cosmeticsandtoiletries.com/regulatory/claims/120476614.html>
6. NHorváth O, Letulé V, Ruzicka T, Herzinger T, Goldscheider I, von Braunmühl T. Periocular discoloration after using a prostaglandin analog for eyelash enhancement: evaluation with reflectance confocal microscopy. *J Cosmet Dermatol* 2017;16(1):18-20.
7. Kam WR, Liu Y, Ding J, Sullivan DA. Do cyclosporine A, an IL-1 receptor antagonist, uridine triphosphate, rebamipide or bimatoprost regulate human meibomian gland epithelial cells? *Invest Ophthalmol Vis Sci* 2016;57:4287-4294.
8. Ding J, Kam WR, Dieckow J, Sullivan DA. The influence of 13-cis retinoic acid on human meibomian gland epithelial cells. *Invest Ophthalmol Vis Sci*. 2013;54:4341-4350
9. Chen D, Wang J, Sullivan DA, Kam WR, Liu Y. Effects of terpinen-4-ol on meibomian gland epithelial cells in vitro. *Cornea* 2020; 39:1541-1546.